

Rabbani et al.

Serial No.: 08/978,632

Filed: November 25, 1997

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- June 19, 2001]

KINDLY AMEND THIS APPLICATION AS FOLLOWS:

In the Claims

Please cancel claims 1-24 and 245. Please add new claims 246-270 as follows:

F1 (cont'd)
~~--246.~~ (NEW) A non-naturally occurring non-native polynucleotide construct comprising at least one sequence segment, which construct when present in a cell produces a product, said construct comprising at least one member selected from the group consisting of a modified nucleotide, a nucleotide analog, a non-nucleic acid entity, and a combination of the foregoing, and said product being selected from the group consisting of antisense RNA, antisense DNA, sense RNA, ribozymes, decoys, messenger RNA, protein and a combination of any of the foregoing. --

--247. (NEW) The construct of claim 1, wherein said construct or a portion thereof is linear, circular or branched. --

--248. (NEW) The construct of claim 1, wherein said construct or a portion thereof is single-stranded, double-stranded, partially double-stranded or triple-stranded.--

--249. (NEW) The construct of claim 248, wherein said sequence segment is in double-stranded form.--

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--250. (NEW) The construct of claim 248, having at least one terminus, said terminus comprising a polynucleotide tail.--

--251. (NEW) The construct of claim 250, wherein said polynucleotide tail is hybridized to a complementary polynucleotide sequence.--

--252. (NEW) The construct of claim 246, wherein said construct comprises DNA, RNA, a DNA-RNA hybrid, a DNA-RNA chimera, or a combination of the foregoing.--

--253. (NEW) The construct of claim 247, wherein said modified nucleotide has been chemically modified.--

F
(cont'd)
--254. (NEW) The construct of claim 253, wherein said chemical modification has been effected to a moiety independently selected from a base, a sugar, and a phosphate, or a combination thereof.--

--255. (NEW) The construct of claim 246, wherein at least one of said nucleotide analog or analogs have been modified on the backbone or sidechain or both.--

--256. (NEW) The construct of claim 246, wherein said non-nucleic acid entity is attached to a single strand or to both strands of said sequence segment.--

--257. (NEW) The construct of claim 246, wherein said non-nucleic acid entity or entities are selected from a natural or synthetic polymer, and a natural or synthetic ligand, or a combination thereof.--

--258. (NEW) The construct of claim 257, wherein said natural polymer comprises a modified or unmodified member selected from a polypeptide, a protein, a polysaccharide, a fatty acid, and a fatty acid ester, or a combination of the foregoing.--

--259. (NEW) The construct of claim 257, wherein said synthetic polymer comprises a homopolymer or heteropolymer.--

--260. (NEW) The construct of claim 259, wherein said homopolymer or heteropolymer carries a net negative charge or a net positive charge.--

F1 (continued)
--261. (NEW) The construct of claim 246, wherein said construct exhibits a further biological activity imparted by said modified nucleotide, said nucleotide analog, said nucleic acid entity, a ligand, or a combination of the foregoing.--

--262. (NEW) The construct of claim 261, wherein said biological activity is selected from nuclease resistance, cell recognition, cell binding, and cellular or nuclear localization, or a combination of the foregoing.--

--263. (NEW) The construct of claim 246, further comprising at least one ligand attached covalently or noncovalently to said modified nucleotide or nucleotides, nucleotide analog or analogs, non-nucleic acid entity or entities, or a combination thereof.--

--264. (NEW) The construct of claim 263, wherein said ligand or ligands are attached to a single stranded segment, a double stranded segment, a single

stranded construct tail, or a sequence complementary to a construct tail, or a combination of the foregoing.--

--265. (NEW) The construct of claim 263, wherein said ligand or ligands are selected from macromolecules and small molecules, or a combination of both.--

--266. (NEW) The construct of claim 246, wherein said construct carried a net positive charge, or a net negative charge, or is neutral or hydrophobic.--

F (cont'd)
--267. (NEW) The construct of claim 246, wherein said construct comprises unmodified nucleotides and at least one member selected from one or more nucleotide analogs and non-nucleic acid entities, or a combination thereof.--

--~~268~~. (NEW) A construct which when present in a cell produces a product, said construct being bound non-ionically to an entity comprising a chemical modification or a ligand.--

--269. (NEW) The construct of claim 268, having at least one terminus, said terminus comprising a polynucleotide tail.--

--270. (NEW) The construct of claim 248, wherein said polynucleotide tail is hybridized to a complementary polynucleotide sequence.--

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